



REGION 6 U.S. ENVIRONMENTAL PROTECTION AGENCY
CHECKLIST FOR GENERAL DUTY INSPECTION UNDER CAA 112(R)

Instructions. For each question answer by checking Yes (Y), No (N), or Not Applicable (NA). Each question is paraphrased from the regulation. For every point of clarification or incident of violation list the evidence supporting it in the comment field.

GENERAL FACILITY INFORMATION

1. Facility Name:	REG Geismar, LLC
2. Mailing Address (Street, City, State, Zip):	P.O. Box 599 Geismar, LA 70734
3. Physical Address or location description (Street, City, State, Zip):	36187 Hwy 30 Geismar, LA 70734
4. Latitude: Longitude: Where Taken:	30.203595 -91.009457 Center of Facility
5. County:	Ascension Parish
6. Facility Contact:	Mr. Peter Guay, Plant Manager
7. Facility Contact Phone Number:	(225) 744-1318
8. Facility Contact E-mail:	peter.guay@regi.com
9. Website (optional):	N/A
10. List and Describe <u>all</u> Processes and indicate which are being inspected or audited:	<p>EPA Regulated Process: Storing on site the EPA regulated PROPANE above EPA established Threshold quantity of 387,000 pounds in one steel bullet storage tank.</p> <p>OSHA Regulated Process: Production of renewable hydrocarbon diesel; Storing on site the Hydrocarbon Diesel in two (2) - 1.7 million gallons above ground tanks; Storing on site Naphtha in two (2) - 6,000 gallons tanks. Those processes are not regulated by EPA.</p> <p>NOTE: The EPA Inspector visited the site to perform RMP Inspection auditing the EPA regulated processes. In addition, Inspector visited the site conducting the General Duty Inspection following the April 2, 2015 accident with fire.</p>

11. Facility History	<p>This Facility was built in 2010 by the Geismar, Louisiana Dynamic Fuels, LLC. with initial start-up on October 1, 2010. The Facility was purchased on 09/11/2013 by REG Geismar, LLC.</p> <p>Facility produce Renewable Synthetic Diesel Fuel. LPG and Naphtha are by-products for release to retail propane outlets.</p>
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Arrival: 8:45 AM

Departure: 4:00 PM

Date: 05 / 18 / 2016

Arrival: 8:30 AM

Departure: 1:00 PM

Date: 05 / 19 / 2016

GENERAL Applicability				
Parameters	Y	N	NA	Comment
§68.10(a) – Is the facility a stationary source with more than a threshold quantity of a regulated substance in a process per §68.115?	X			See #10 above
§68.10(b)(3) – Have emergency response procedures been <u>coordinated</u> with local planning and response organizations?	X			Verified with LEPC/FD contact (name): Ascension Parish Office of Homeland Security, tel: (225) 621-8360
§68.10(d)(1) - Does the facility have a listed NAICS code(s)?	X			NAICS Code: 325199
§68.10(d)(2) - Is facility subject to OSHA PSM?	X			Facility has implemented the Occupational Safety and Health Administration (OSHA) Chemical Process Safety Management Program 29 CFR 1910.119 standards. The Propane storage system complies with NFPA-58 requirements for LPG gas storage and is also regulated by CFR 40 Part 6 and complies with EPA's accident prevention rules.

What is the program level for this process?	Non-Filer No to §68.10(a)	Program 1 No to §68.10(a) and §68.10(b)(3)	Program 2 No to §68.10(a)	Program 3 Yes to §68.10(a), and either of §68.10(d)(1 or 2)
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Have the owners/operators completed Process Hazard Analyses (PHA) or Hazard Review (HR) for each process involving extremely hazardous substances (EHSs)?	X			PHA
Did the owner/operators use appropriate hazard assessment techniques?	X			What-if What-if/Checklist Checklist HAZOP (Hazard and Operability Study) FMEA Fault Tree
Are the PHA/HR complete, accurate, correct and do they:				
Identify the intrinsic hazards of the substance and process?	X			Engineering and administrative controls
Identify the potential releases from the process?	X			Application of detection methodology
Identify the potential impacts on the public and the environment?		X		What modeling program? (ARCHIE, ALOHA, RMP*Comp, Degadis) Used Overpressure Summary table
Are these impacts realistic, accurate, and correct?	X			Environmental conditions? Used MARPLOT
Technology of the Process:				
Maximum intended inventory?	X			Maximum intended inventory was verified on site
Safe upper and lower limits for temperatures, pressures, flows, etc.?	X			Process monitoring and control instrumentation with alarms and sensors
Evaluation of consequence of deviation?	X			Operating limits and steps required to correct or avoid deviation are listed

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Design:				
Are design documents for each process correct, accurate, and current?	X			Original plans on file
Do designs minimize risks of releases based on PHA/HR?	X			Control Room operators monitoring the processes.
Evaluation of design documents:				
Are design codes identified and appropriate for the process?	X			List of Codes and standards on file
Was facility constructed or modified according to design specifications?	X			Construction plan sealed by P.E.
Are there quality control procedures to ensure construction materials meet design specification?	X			Reviewed and certified by team
Do critical process component have redundant systems installed?	X			Authomatic shut-offs
Has the facility design been updated to current codes and standards?			X	Facility was built in 2010, all codes and standards are current
Are there remote monitoring and remote control capabilities for dealing with upsets?	X			Monitor calibration ppm? Operation control room, alarms and detectors installed

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Maintenance:				All preventive maintenance procedures were audited under RMP part of this inspection. See RMP Report.
Are there preventive maintenance procedures to ensure the mechanical integrity of the process equipment?	X			
Do maintenance procedures and preventive schedules follow generally accepted engineering practices?	X			
Are maintenance personnel trained on hazards of the chemicals, the process and in maintenance procedures?	X			
Does training include understanding and proficiency evaluations?	X			
Is there a maintenance supplies and parts inventory that corresponds with maintenance schedules, especially for critical components that affect process safety?	X			
Is there a quality control program to ensure spare parts meet specifications, and is it implemented and working?	X			
How has the facility minimized the possibility of an unauthorized entry?	X			Entry by Guardhouse only. Security cameras installed through the site.

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Operations:				See RMP Report
Are there Standard Operating Procedures (SOPs) for each process?	X			
Do SOPs cover each phase of each process?				
Initial Startup	X			
Startup	X			
Normal Operations	X			
Shut Down	X			
Emergency Shutdown	X			
Emergency and Temporary Ops			X	
Startup after Emergency shutdown	X			
Consequences of deviation and steps to correct or avoid?	X			
Are SOPs clear, concise, correct, and written at the appropriate level of understanding for the operator?	X			
Do SOPs identify upper and lower limits for operating parameters like temperatures, pressures, flows, volumes, levels, pH, concentrations, etc.?	X			
Do limits for parameters agree with those identified in PHA/HR?	X			
Are process equipment components such as valves, gauges, pumps, vessels clearly marked and agree with SOP nomenclature?	X			
Are SOP's revised periodically and current?	X			
Revised after incidents?				

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Training:				
Are employees trained and tested for competence on the safe operating procedures for the process they operate?	X			Each operator is initially trained in an overview of the process. Refresher training is provided annually. Facility performs testing by observation to assure that employees understand and adhere to operating procedures.
Is training adequate?	X			Written tests are graded to verify that the employee understood the training.
Are employees trained on the intrinsic hazards of the substance and the process and the consequences of deviation from the limits for process parameters?	X			Training records are retained on file. Employees receive Certificates of Completion.
What is the frequency of training?	X			Facility have annual training program. Safety meetings are conducted on monthly bases.
Are there communication procedures to ensure that instructions given are clear and understood correctly (i.e. "repeat back" the instructions)?	X			Each test is graded. Employee who did not receive acceptable grade need to retake the traing.
Are employees trained to recognize emergency situations?	X			Annual emergency drills are conducted together with the fire department on site.
Are they authorized to take actions to prevent them or mitigate them?	X			Emergency Plan is discussed at safety meetings.
Does training reflect current operations?	X			When operation change, the safety plan is reviewed and adjusted as needed.

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Managing Change:				
When changes in the process are planned, are they evaluated as to how these changes will affect the hazards identified in PHA/HR?			X	No major process Change to-date
Hazards				
Materials of Construction				
Operating Procedures				
Maintenance Procedures				
Prevention Programs				

FACILITY DESIGN and MAINTENANCE				
	Y	N	NA	Comment
Incident Investigation:				
Does the facility investigate incidents resulting in catastrophic releases within 48 hours?	X			Accident with injury on April 2, 2015 was reported to OSHA (Activity No. 973450) within 48 hours.
Does the team contain at least one person knowledgeable in the process?	X			The accident investigation team under direction of Mr. Peter Guay, Plant Manager and Mr. Troy Harris, Coordinator, Environmental, Health and Safety.
Does the investigation report contain:				
Date of incident?	X			April 2, 2015 at 6:24 pm
Date the investigation began?	X			April 3, 2015
Incident description?	X			See Report
Factors contributing to incident?				Still under investigation
Recommendations?				Still under investigation
Is there a system to promptly resolve and document resolution of the report findings?	X			Still under litigation
Are findings evaluated to ensure that any new information is included in PHA/HR reviews, SOP's, and maintenance programs?	X			Still under litigation
Self Audits:				
Does owner/operator practice self-auditing of the facility's prevention program?	X			Annual certification of prevention program.
Is it done by a third party?	X			By outside Contract

CONSEQUENCE MINIMIZATION				
	Y	N	NA	Comment
Planning:				
Has the owner/operator developed an emergency response plan that specifically addresses release scenarios developed from the PHA/HR and historical information?	X			Emergency Response Plan submitted to Ascension Parish Office of Homeland Security, tel: (225) 621-8360.
Does the plan identify potential release scenarios and their potential impacts on the public and the environment?	X			Emergency gathering areas are defined and posted.
Is there an emergency response plan to respond to emergency situations based on the accidental release scenarios?	X			A windsack installed on site directs employees to escape against direction of a wind.
Does the plan clearly identify responsibilities, functions, and contacts for emergency response?	X			Directed by GAMA
Does the plan include coordination with local emergency responders?	X			LEPC and FIRE DEPTMENT
Are employees trained on emergency response actions?	X			Several employees of REG Geismar are members of the Geismar Mutual Aid (GAMA) and cooperate with other facilities during emergency situations.
Are routine exercises conducted to practice emergency response?	X			Drills together with Gonzales FD are performed annually on site.
Is the emergency response plan reviewed and revised as the process changes?			X	No major process change to-date.

OBLIGATIONS UNDER THE GENERAL DUTY CLAUSE			
	Y	N	Comment
Has the owner/operator identified hazards, which may result from accidental releases using appropriate hazard assessment techniques?	X		Due to prior reliability issues with the seal leaking on the Hydrodeoxygenation (HDO) recycle pump, Facility conducted a mechanical engineering evaluation of the external seals on the pump.
Has the owner/operator designed and maintained a safe facility taking such steps as are necessary to prevent releases?	X		Facility performed repairs to a pin-hole leak in the HDO balance line. As additional maintenance, the internal inboard seal was replaced on the pump. REG personnel performed the normal procedures to isolate the pump and all repair work on the pump was completed by contract maintenance personnel on April 1, 2015. Established steps necessary to verify pump integrity, alignment, vibration and pressure testing were performed per established procedure and met all specifications. The established start-up procedures were followed to bring the pump back into service. On-site personnel and remote control room technicians were monitoring the process. Before reaching the operating pressure and temperature fire was observed coming from the inboard seal area. Reports indicate the fire formed rapidly and there was no visible release of liquid prior to the fire. Operation personnel reacted quickly to complete emergency shutdown procedure. Plant deluge and fire monitors were activated to control flame spread and to cool adjacent equipment. Emergency response notification occurred via CAER radio and responders arrived at the facility to isolate and extinguish the fire. Ambulances arrived to transport two injured employees to a hospital. Forensic evaluation of the pump will complete the causal factor analysis of the pump failure to determine causative factors of accident. The removed pump is secured and stored on site for legal investigation. Facility allowed Inspector to view the pump, however, they declined taking any pictures. Inspector was allowed to review the interviews with personnel, contract maintenance and pump monitoring parameters but declined to secure copies or notes.

Has the owner/operator minimized the consequences of accidental releases that do occur?	X	<p>REG had purchased a new pump of an alternative design to increase reliability which should minimize the possibility of fire related to external seals. After completion of evaluation of the integrity and safety of the new pump Facility installed the pump and started the HDO process on September 2, 2015.</p> <p>The HDO Reactor and the new pump were working during Inspector's visit. Facility requested not taking any pictures of the subject pump. Inspector took a picture of the Reactor avoiding the area of HDO Pump.</p>
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Date of Inspection/Audit	May 18 and 19, 2016
Lead Inspector/Auditor Name and Affiliation	Ted L. Mizutowicz RMP Inspector, Region 6 EP
Lead Inspector/Auditor Signature	